CHAPTER 5
STANDARD DRAWING REVISION LOG

B5.1 Metal Reinforcement
Oct 2017 Revised note 6 to include GFRP designation.
    Changed column name in Table to “Coat”.
    Added GFRP Bar Length Table.
Nov 2019 Revised format of notes to active voice, imperative mood.

B5.2A AASHTO Type 2 Prestressed Girder
July 2009 Modified the end block reinforcement to comply with AASHTO Article 5.10.10.
June 2013 Revised end block reinforcement details to indicate reinforcement must be designed.

B5.2B AASHTO Type 3 Prestressed Girder
June 2006 Extended the 6” stirrup spacing in the end block to comply with AASHTO Article 5.10.10.2.
July 2009 Modified the end block reinforcement to comply with AASHTO Article 5.10.10.
June 2013 Revised end block reinforcement details to indicate reinforcement must be designed.

B5.2C AASHTO Type 4 Prestressed Girder
June 2006 Extended the 6” stirrup spacing in the end block to comply with AASHTO Article 5.10.10.2.
July 2009 Modified the end block reinforcement to comply with AASHTO Article 5.10.10.
July 2010 Corrected dimension of G1 & G2 bars from 12.5” to 15”.
June 2013 Revised end block reinforcement details to indicate reinforcement must be designed.

B5.2D Prestressed AASHTO Girder Details
June 2006 Extended strand for the positive moment connection in the Type C Diaphragm to comply with Article 5.14.1.4 of the LRFD Manual.
    Changed “Abutment Diaphragm Dowel Details” to “Girder End Details” and labeled Type C “Positive Moment Connection”.
July 2009 Added Note 9 for size of strand used in the design.
    Revised Note 5 for lateral restraint until deck is cured.
Sept 2012 Changed “cut strand” to “extend strand” in Positive Moment Connection Detail.
March 2015 Added new note 5 for electronic shop drawings.
Oct 2017 Specified 0.6” diameter strand.
    Added note for Girder Shipping.
Nov 2019 Revised format of notes to active voice, imperative mood.

B5.2E Pier Diaphragm for AASHTO Girders
June 2006 Extended strand for the positive moment connection and widened the gap between girder ends to 10”.

B5.3A 30” Bulb Tee Prestressed Girder
March 2015 Added new sheet

B5.3B 36” Bulb Tee Prestressed Girder
July 2009 Modified the end block reinforcement to comply with AASHTO Article 5.10.10.
June 2013 Revised end block reinforcement details to indicate reinforcement must be designed.
March 2015 Changed page number

B5.3C 42” Bulb Tee Prestressed Girder
July 2009 Modified the end block reinforcement to comply with AASHTO Article 5.10.10.
June 2013 Revised end block reinforcement details to indicate reinforcement must be designed.
March 2015 Changed page number

B5.3D 48” Bulb Tee Prestressed Girder
CHAPTER 5
STANDARD DRAWING REVISION LOG

June 2006  Extended the 6” stirrup spacing in the end block to comply with AASHTO Article 5.10.10.2.
July 2009  Modified the end block reinforcement to comply with AASHTO Article 5.10.10.
June 2013  Revised end block reinforcement details to indicate reinforcement must be designed.
March 2015  Changed page number

B5.3E  54” Bulb Tee Prestressed Girder
June 2006  Extended the 6” stirrup spacing in the end block to comply with AASHTO Article 5.10.10.2.
July 2009  Modified the end block reinforcement to comply with AASHTO Article 5.10.10.
June 2013  Revised end block reinforcement details to indicate reinforcement must be designed.
March 2015  Changed page number

B5.3F  60” Bulb Tee Prestressed Girder
June 2006  Extended the 6” stirrup spacing in the end block to comply with AASHTO Article 5.10.10.2.
July 2009  Modified the end block reinforcement to comply with AASHTO Article 5.10.10.
June 2013  Revised end block reinforcement details to indicate reinforcement must be designed.
March 2015  Changed page number

B5.3G  66” Bulb Tee Prestressed Girder
June 2006  Extended the 6” stirrup spacing in the end block to comply with AASHTO Article 5.10.10.2.
July 2009  Modified the end block reinforcement to comply with AASHTO Article 5.10.10.
June 2013  Revised end block reinforcement details to indicate reinforcement must be designed.
March 2015  Changed page number

B5.3H  72” Bulb Tee Prestressed Girder
June 2006  Extended the 6” stirrup spacing in the end block to comply with AASHTO Article 5.10.10.2.
July 2009  Modified the end block reinforcement to comply with AASHTO Article 5.10.10.
June 2013  Revised end block reinforcement details to indicate reinforcement must be designed.
March 2015  Changed page number

B5.3I  WF42G Prestressed Girder
July 2009  Added new standard drawing.
June 2013  Revised end block reinforcement details to indicate reinforcement must be designed.
                      Revised bearing plate to 36” square to accommodate difference in bottom flange chamfers.
March 2015  Changed page number

B5.3J  WF50G Prestressed Girder
July 2009  Added new standard drawing.
June 2013  Revised end block reinforcement details to indicate reinforcement must be designed.
                      Revised bearing plate to 36” square to accommodate difference in bottom flange chamfers.
March 2015  Changed page number

B5.3K  WF58G Prestressed Girder
July 2009  Added new standard drawing.
June 2013  Revised end block reinforcement details to indicate reinforcement must be designed.
                      Corrected top flange cantilever dimension.
                      Revised bearing plate to 36” square to accommodate difference in bottom flange chamfers.
March 2015  Changed page number

B5.3L  WF66G Prestressed Girder
July 2009  Added new standard drawing.
CHAPTER 5
STANDARD DRAWING REVISION LOG

June 2013  Revised end block reinforcement details to indicate reinforcement must be designed. Corrected top flange cantilever dimension. Revised bearing plate to 36” square to accommodate difference in bottom flange chamfers.
March 2015  Changed page number

B5.3M WF74G Prestressed Girder
July 2009  Added new standard drawing.
June 2013  Revised end block reinforcement details to indicate reinforcement must be designed. Corrected top flange cantilever dimension. Revised bearing plate to 36” square to accommodate difference in bottom flange chamfers.
March 2015  Changed page number

B5.3N WF83G Prestressed Girder
July 2009  Added new standard drawing.
June 2013  Revised end block reinforcement details to indicate reinforcement must be designed. Corrected top flange cantilever dimension. Revised bearing plate to 36” square to accommodate difference in bottom flange chamfers.
March 2015  Changed page number

B5.3O Prestressed Bulb Tee Girder Details
June 2006  Renumbered the sheet and extended strand for the positive moment connection in the Type C Diaphragm to comply with Article 5.14.1.4 of the LRFD Manual. Changed “Abutment Diaphragm Dowel Details” to “Girder End Details” and labeled Type C “Positive Moment Connection”.
July 2008  Added Note 12 for size of strand used in the design.
July 2009  Renumbered the sheet from B5.3O to B5.3U. Added Note 9 for size of strand used in the design. Revised Note 5 for lateral restraint until deck is cured.
March 2015  Changed page number to B5.3O. Added lift loop location. Added new note 5 for electronic shop drawings. Revised note 6 for adding temporary strands in the top flange for handling.
Oct 2017  Specified 0.6” diameter strand. Added note for Girder Shipping.
Nov 2019  Deleted “&” from Lift Loop Location Table. Revised format of notes to active voice, imperative mood. Deleted reference to contour sheet in Screed Adjustment diagram.

B5.3P Temporary Diaphragm Details
June 2006  Renumbered the sheet.
July 2009  Renumbered the sheet from B5.3P to B5.3V.
May 2014  Lowered the hole for the top brace from 9” to 12” to get the assembly below the fillet for the WF Series girders. Added the WF data to the Lower Connection Plate Detail. Added a G13-#4 bar for the WF girder.
March 2015  Changed page number
Nov 2019  Revised format of notes to active voice, imperative mood.

B5.3Q Pier Diaphragm for Bulb Tee Girders
### CHAPTER 5
#### STANDARD DRAWING REVISION LOG

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2006</td>
<td>Renumbered the sheet, extended the strand for the positive moment connection, and widened the gap between girder ends to 10&quot;.</td>
</tr>
<tr>
<td>July 2009</td>
<td>Renumbered the sheet from B5.3Q to B5.3W.</td>
</tr>
<tr>
<td>March 2015</td>
<td>Changed page number</td>
</tr>
</tbody>
</table>

**B5.4A Typical Deck Bulb Tee Section & Details (Off-System and Local Roads)**
- **June 2006**: Added new standard drawing.
- **July 2009**: Corrected spelling of Bulb Tee in title block
  - Corrected wording in Note 6 (“one” to “when”)
  - Added Note 14 placing girders perpendicular to the cross-slope.
  - Changed intermediate diaphragm reinforcement G9, G9A, D1, &D2 to #4
  - Specified G9 & G9A bars @ maximum 12” spacing
- **June 2013**: Revised reference in Note 8 to subsection 705.02 for 2012 Standard Specifications.
- **March 2015**: Revised note 10 for spray-applied concrete waterproof membrane.
- **Aug 2016**: Designated drawing for Off System and Local Roads bridges using weld tabs.
- **Nov 2019**: Revised format of notes to active voice, imperative mood.

**B5.4B Prestressed Deck Bulb Tee Girder (Off-System and Local Roads)**
- **June 2006**: Added new standard drawing.
- **April 2008**: Defined “W”
  - Changed G14 to #4
  - Computed max. spacing for G11 & G12 flange reinforcement
  - Modified Reinforcement Diagram Sketch for G1, G5, G5A, G11, G13, & G14.
- **July 2009**: Modified Reinforcement Diagram Sketch for G6 & G8
  - Added G9 & G9A bars to Reinforcement Diagram
  - Added spacing of intermediate diaphragm bars in the Elevation view
  - Added confinement length “Y” and Bursting Reinforcement length “Z” to End Reinforcement Detail
- **July 2010**: Standardized G12 bar to #6@6 ½” and added G12A for exterior girder.
  - Added note for bundling #4 bar with G12 within 8’ of joint/discontinuity of parapet.
- **Aug 2016**: Designated drawing for Off System and Local Roads bridges.
  - Changed all reinforcement to epoxy coated bars.
  - Revised concrete parapet to 2-tube curb mounted rail.
  - Changed G12A to 180° hook.
  - Updated names of fabricators.

**B5.4C Prestressed Deck Bulb Tee Girder Details (Off-System and Local Roads)**
- **June 2006**: Added new standard drawing.
- **July 2009**: Added Note 11 for size of strand used in the design.
  - Added Notes 12 & 13 for deflection data
  - Modified Deflection Data Table for ΔD
- **July 2010**: Deleted the 5’ dimension for length of splayed bar area and made it a variable.
- **March 2015**: Added new note 5 for electronic shop drawings.
- **Aug 2016**: Designated drawing for Off System and Local Roads bridges using weld tabs.
- **Oct 2017**: Specified 0.6” diameter strand.
  - Added note for Girder Shipping.
- **Nov 2019**: Corrected size and spacing of G11 & G12 bars in the Girder Plan.
  - Revised format of notes to active voice, imperative mood.

**B5.4D Typical Deck Bulb Tee Section & Details (State System)**
- **Aug 2016**: Added new standard drawing for State System Bridges using UHPC longitudinal shear key.
CHAPTER 5
STANDARD DRAWING REVISION LOG

Oct 2017  Revised note 5 temporary bracing removal to agree with construction sequence.
Revised note 7 to agree with the Special Provision.
Revised note 9 to agree with the Special Provision.

Nov 2019  Revised format of notes to active voice, imperative mood.
Added note 9A for HESC.
Added note 13 for PPC overlay.

B5.4E  Prestressed Deck Bulb Tee Girder (State System)
Aug 2016  Added new standard drawing for State System Bridges using UHPC longitudinal shear key.
Oct 2017  Changed stirrup spacing at the end of the girder in the Elevation view from 3” to 4” to agree with the End
Reinforcement Detail.
Nov 2019  Defined extension length of G11 & G12 bars into UHPC and HESC closure pour.

B5.4F  Prestressed Deck Bulb Tee Girder Details (State System)
Oct 2016  Added new standard drawing for State System Bridges using UHPC longitudinal shear key.
Oct 2017  Specified 0.6” diameter strand.
          Added note for Girder Shipping.
Nov 2019  Added HESC closure pour and forming details.
          Labeled closure pour and forming details for UHPC.
          Revised format of notes to active voice, imperative mood.

B5.5A  1’-0” Prestressed Solid Slab (Off-System and Local Roads)
June 2013  Changed top mat reinforcement cover to 2½”.
          Added 4-G2#4 bars at top of section.
          Added Note 5 for design of end block reinforcement
          Revised location of top row of prestress reinforcement.
Aug 2016  Designated drawing for Off System and Local Roads bridges using weld ties and tie rods.
          Corrected the float finish note reference in the Elevation.
Oct 2017  Moved note from Typical Prestressed Slab Details sheet B5.5G to create note 5.
Nov 2019  Corrected reference in PLAN from “note 5” to “note 4”.

B5.5B  1’-3” Prestressed Voided Slab (Off-System and Local Roads)
June 2013  Changed top mat reinforcement cover to 2½”.
          Added 4-G2#4 bars at top of section.
          Added Note 5 for design of end block reinforcement
          Revised location of top row of prestress reinforcement.
Aug 2016  Designated drawing for Off System and Local Roads bridges using weld ties and tie rods.
          Corrected the float finish note reference in the Elevation.
Oct 2017  Moved note from Typical Prestressed Slab Details sheet B5.5G to create note 5.
Nov 2019  Corrected reference in PLAN from “note 5” to “note 4”.

B5.5C  1’-3” Prestressed Solid Slab (Off-System and Local Roads)
Feb 2012   Deleted void and vent hole details shown on the drawings.
June 2013  Changed top mat reinforcement cover to 2½”.
          Added 4-G2#4 bars at top of section.
          Added Note 5 for design of end block reinforcement
          Revised location of top row of prestress reinforcement.
Aug 2016  Designated drawing for Off System and Local Roads bridges using weld ties and tie rods.
          Corrected the float finish note reference in the Elevation.
Oct 2017  Moved note from Typical Prestressed Slab Details sheet B5.5G to create note 5.
Nov 2019  Corrected reference in PLAN from “note 5” to “note 4”.

B5.5D  1’-6” Prestressed Solid Slab (Off-System and Local Roads)
Feb 2012   Deleted void and vent hole details shown on the drawings.
June 2013  Changed top mat reinforcement cover to 2½”.
Added 4-G2#4 bars at top of section.
Added Note 5 for design of end block reinforcement
Revised location of top row of prestress reinforcement.

Aug 2016
Designated drawing for Off System and Local Roads bridges using weld ties and tie rods.
Corrected the float finish note reference in the Elevation.

Oct 2017
Moved note from Typical Prestressed Slab Details sheet B5.5G to create note 5.

Nov 2019
Changed center of 8” voids from 8½” to 9” to meet the requirements of AASTO Article 5.12.3.2.2.
Corrected reference in PLAN from “note 5” to “note 4”.

**B5.5E 1'-9” Prestressed Solid Slab (Off-System and Local Roads)**

- **Feb 2012** Deleted void and vent hole details shown on the drawings.
- **June 2013** Changed top mat reinforcement cover to 2½”.
  - Added 4-G2#4 bars at top of section.
  - Added Note 5 for design of end block reinforcement
  - Revised location of top row of prestress reinforcement.
- **Aug 2016**
  - Designated drawing for Off System and Local Roads bridges using weld ties and tie rods.
  - Corrected the float finish note reference in the Elevation.
- **Oct 2017**
  - Moved note from Typical Prestressed Slab Details sheet B5.5G to create note 5.
- **Nov 2019**
  - Corrected reference in PLAN from “note 5” to “note 4”.

**B5.5F 2'-2” Prestressed Voided Slab (Off-System and Local Roads)**

- **June 2006** Extended the 6” stirrup spacing in the end block to comply with AASHTO Article 5.10.10.2.
- **June 2013** Changed top mat reinforcement cover to 2½”.
  - Added 4-G2#4 bars at top of section.
  - Added Note 5 for design of end block reinforcement
  - Revised location of top row of prestress reinforcement.
- **Aug 2016**
  - Designated drawing for Off System and Local Roads bridges using weld ties and tie rods.
  - Corrected the float finish note reference in the Elevation.
- **Oct 2017**
  - Moved note from Typical Prestressed Slab Details sheet B5.5G to create note 5.
- **Nov 2019**
  - Corrected reference in PLAN from “note 5” to “note 4”.

**B5.5G Typical Prestressed Slab Details (Off-System and Local Roads)**

- **June 2006** Corrected the reference in Note 10 to paragraph H to conform to the 2004 Standard Specifications.
- **July 2009** Added Note 19 for size of strand used in the design.
- **June 2013** Corrected Detail A.
  - Added Self Consolidating Concrete note to Note 9.
- **March 2015** Added new note 14 for electronic shop drawings.
- **Aug 2016**
  - Designated drawing for Off System and Local Roads bridges using weld ties and tie rods.
  - Deleted composite dead load from deflection data table.
- **Oct 2017**
  - Specified 0.6” diameter strand.
  - Added note for Girder Shipping.
- **Nov 2019**
  - Revised Note 9 to replace reference to Contractor’s Note for Self-Consolidating Concrete with “Section 502” to comply with the 2018 Standard Specifications.
  - Revised format of notes to active voice, imperative mood.

**B5.6A 12” Prestressed Slab (State System)**

- **Aug 2016**
  - Added new standard drawing for State System Bridges using UHPC longitudinal shear key.
- **Oct 2017**
  - In note 2, replaced sheet number with “Typical Prestressed Slab Details sheet”.
CHAPTER 5
STANDARD DRAWING REVISION LOG

In note 5, changed note reference to 21 to agree with new numbering on Typical Prestressed Slab Details sheet.
Moved note from Typical Prestressed Slab Details sheet B5.6G to create note 7.
In the Elevation, changed note reference to 18 to agree with new numbering on Typical Prestressed Slab Details sheet and replaced sheet number with “Typical Prestressed Slab Details sheet”.

Nov 2019
Increased depth of shear key from 6” to 7”.

B5.6B 1'-3” Prestressed Voided Slab (State System)
Aug 2016 Added new standard drawing for State System Bridges using UHPC longitudinal shear key.
Oct 2017 In note 2, replaced sheet number with “Typical Prestressed Slab Details sheet”.
In note 5, changed note reference to 21 to agree with new numbering on Typical Prestressed Slab Details sheet.
Moved note from Typical Prestressed Slab Details sheet B5.6G to create note 7.
In the Elevation, changed note reference to 18 to agree with new numbering on Typical Prestressed Slab Details sheet and replaced sheet number with “Typical Prestressed Slab Details sheet”.

Nov 2019 Deleted 4” dia. PVC for future utilities note from Section at Mid-Span. 4” PVC will not fit inside 5” void. Increased depth of shear key from 6” to 7”.

B5.6C 1'-3” Prestressed Slab (State System) (State System)
Aug 2016 Added new standard drawing for State System Bridges using UHPC longitudinal shear key.
Oct 2017 In note 2, replaced sheet number with “Typical Prestressed Slab Details sheet”.
In note 5, changed note reference to 21 to agree with new numbering on Typical Prestressed Slab Details sheet.
Moved note from Typical Prestressed Slab Details sheet B5.6G to create note 7.
In the Elevation, changed note reference to 18 to agree with new numbering on Typical Prestressed Slab Details sheet and replaced sheet number with “Typical Prestressed Slab Details sheet”.

Nov 2019 Increased depth of shear key from 6” to 7”.

B5.6D 1'-6” Prestressed Voided Slab (State System)
Aug 2016 Added new standard drawing for State System Bridges using UHPC longitudinal shear key.
Oct 2017 In note 2, replaced sheet number with “Typical Prestressed Slab Details sheet”.
In note 5, changed note reference to 21 to agree with new numbering on Typical Prestressed Slab Details sheet.
Moved note from Typical Prestressed Slab Details sheet B5.6G to create note 7.
In the Elevation, changed note reference to 21 to agree with new numbering on Typical Prestressed Slab Details sheet and replaced sheet number with “Typical Prestressed Slab Details sheet”.

Nov 2019 Changed center of 8” voids from 8½” to 9” to meet the requirements of AASTO Article 5.12.3.2.2. Corrected note 5 reference from “note 21” to “note 20”.
Increased depth of shear key from 6” to 7”.

B5.6E 1'-9” Prestressed Voided Slab (State System)
Aug 2016 Added new standard drawing for State System Bridges using UHPC longitudinal shear key.
Oct 2017 In note 2, replaced sheet number with “Typical Prestressed Slab Details sheet”.
In note 5, changed note reference to 21 to agree with new numbering on Typical Prestressed Slab Details sheet.
Moved note from Typical Prestressed Slab Details sheet B5.6G to create note 7.
In the Elevation, changed note reference to 21 to agree with new numbering on Typical Prestressed Slab Details sheet and replaced sheet number with “Typical Prestressed Slab Details sheet”.

Nov 2019 Increased depth of shear key from 6” to 7”.

B5.6F 2'-2” Prestressed Voided Slab (State System)
Aug 2016 Added new standard drawing for State System Bridges using UHPC longitudinal shear key.
Oct 2017 In note 2, replaced sheet number with “Typical Prestressed Slab Details sheet”.
CHAPTER 5
STANDARD DRAWING REVISION LOG

In note 5, changed note reference to 21 to agree with new numbering on Typical Prestressed Slab Details sheet.
Moved note from Typical Prestressed Slab Details sheet B5.6G to create note 7.
In the Elevation, changed note reference to 18 to agree with new numbering on Typical Prestressed Slab Details sheet and replaced sheet number with “Typical Prestressed Slab Details sheet”.

Nov 2019 Increased depth of shear key from 6” to 7”.

B5.6G Typical Prestressed Slab Details (State System)
Aug 2016 Added new standard drawing for State System Bridges using UHPC longitudinal shear key.
Oct 2017 Reformatted Notes.
Specified 0.6” diameter strand.
Added note for Girder Shipping.
Changed “mill” to “diamond grind” in new note 21.
March 2018 Changed “mill” to “diamond grind” in Construction Sequence note 5.
Nov 2019 Revised Note 3 to replace reference to Contractor’s Note for Self-Consolidating Concrete with “Section 502” to comply with the 2018 Standard Specifications.
Corrected reference to “note 21” to “note 20” in Camber Detail.
Revised format of notes to active voice, imperative mood.
Deleted note 20 for future utility conduits.
Renumbered note 21 to note 20.
Changed thickness of strip form from ¼±⅛ to ⅜” and plywood cover form thickness from ⅜” to ¾” to agree with deck bulb tee girder details.
Increased depth of shear key from 6” to 7”.
Corrected location of G6 bar in Shear Key Detail to show 2½” clear and increased length of G6 & G7 bars.

B5.7A Box Girder Details
June 2006 Renumbered the sheet.
Nov 2019 Revised format of notes to active voice, imperative mood.

B5.7B Post-tensioning Standard Details
June 2006 Renumbered the sheet.
Nov 2019 Revised format of notes to active voice, imperative mood.

B5.8 Electrical Connection to Top Reinforcing Steel
June 2006 Added new standard drawing.
Nov 2019 Deleted sheet.

B5.8 Concrete Repair Details
Nov 2019 Added new sheet.